

## PCT REQUEST

Original (for SUBMISSION)

0	For receiving Office use only	
0-1	International Application No.	
0-2	International Filing Date	
0-3	Name of receiving Office and "PCT International Application"	
0-4	Form PCT/RO/101 PCT Request	
0-4-1	Prepared Using	PCT-SAFE [EASY mode] Version 3.50 (Build 0002.162)
0-5	Petition The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	United Kingdom Patent Office (RO/GB)
0-7	Applicant's or agent's file reference	101211-1 WO
I	Title of Invention	QUINAZOLINE DERIVATIVES
II	Applicant	
II-1	This person is	applicant only
II-2	Applicant for	AP: (BW GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW); EA: (AM AZ BY KG KZ MD RU TJ TM); EP: (AT BE BG CH&LI CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PL PT RO SE SI SK TR); OA: (BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG); AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH& LI CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW
II-4	Name	ASTRAZENECA AB
II-5	Address	Sodertalje SE-151 85 Sweden
II-6	State of nationality	SE
II-7	State of residence	SE
II-8	Telephone No.	+44 1625 230148
II-9	Facsimile No.	+46 8553 28820

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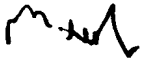
III-1	Applicant and/or inventor	
III-1-1	This person is	applicant only
III-1-2	Applicant for	MG
III-1-4	Name	ASTRAZENECA UK LIMITED
III-1-5	Address	15 Stanhope Gate London Greater London W1K 1LN United Kingdom
III-1-6	State of nationality	GB
III-1-7	State of residence	GB
III-2	Applicant and/or inventor	
III-2-1	This person is	applicant and inventor
III-2-2	Applicant for	US only
III-2-4	Name (LAST, First)	HENNEQUIN, Laurent, Francois, Andre
III-2-5	Address	AstraZeneca Pharma Z.I. la Pompelle, BP 1050 51689 Reims France
III-2-6	State of nationality	FR
III-2-7	State of residence	FR
III-3	Applicant and/or inventor	
III-3-1	This person is	applicant and inventor
III-3-2	Applicant for	US only
III-3-4	Name (LAST, First)	HALSALL, Christopher, Thomas
III-3-5	Address	AstraZeneca R&D Alderley Alderley Park Macclesfield Cheshire SK10 4TG United Kingdom
III-3-6	State of nationality	GB
III-3-7	State of residence	GB

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IV-1	Agent or common representative; or address for correspondence The person identified below is hereby/ has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent	
IV-1-1	Name	ASTRAZENECA	
IV-1-2	Address	Global Intellectual Property SE-151 85 Sodertalje Sweden	
IV-1-3	Telephone No.	+44 1625 230148	
IV-1-4	Facsimile No.	+46 8553 28820	
V	DESIGNATIONS		
V-1	The filing of this request constitutes under Rule 4.9(a), the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.		
VI-1	Priority claim of earlier national application		
VI-1-1	Filing date	16 September 2003 (16.09.2003)	
VI-1-2	Number	0321620.7	
VI-1-3	Country	GB	
VI-2	Priority claim of earlier national application		
VI-2-1	Filing date	19 March 2004 (19.03.2004)	
VI-2-2	Number	0406163.6	
VI-2-3	Country	GB	
VII-1	International Searching Authority Chosen	European Patent Office (EPO) (ISA/EP)	
VIII	Declarations	Number of declarations	
VIII-1	Declaration as to the identity of the inventor	-	
VIII-2	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	-	
VIII-3	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application	-	
VIII-4	Declaration of inventorship (only for the purposes of the designation of the United States of America)	-	
VIII-5	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	-	

**PCT REQUEST**Original (for **SUBMISSION** )

<b>IX</b>	<b>Check list</b>	<b>number of sheets</b>	<b>electronic file(s) attached</b>
IX-1	Request (including declaration sheets)	5	✓
IX-2	Description	129	-
IX-3	Claims	19	-
IX-4	Abstract	1	✓
IX-5	Drawings	0	-
IX-7	TOTAL	154	
	<b>Accompanying Items</b>	<b>paper document(s) attached</b>	<b>electronic file(s) attached</b>
IX-8	Fee calculation sheet	✓	-
IX-9	Original separate power of attorney	✓	-
IX-10	Original general power of attorney	✓	-
IX-13	Priority document(s)	Item(s) VI-1 VI-2	-
IX-17	PCT-SAFE physical media	-	✓
IX-19	Figure of the drawings which should accompany the abstract		
IX-20	Language of filing of the international application	English	
X-1	Signature of applicant, agent or common representative		
X-1-1	Name	ASTRAZENECA	
X-1-2	Name of signatory	NELSON, Michael Andrew	
X-1-3	Capacity	Agent	

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10-1	Date of actual receipt of the purported international application	
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/EP
10-6	Transmittal of search copy delayed until search fee is paid	

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11-1	Date of receipt of the record copy by the International Bureau	
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**PCT REQUEST (ANNEX - FEE CALCULATION SHEET)**

Original (for SUBMISSION)

(This sheet is not part of and does not count as a sheet of the international application)

<b>0</b>	<b>For receiving Office use only</b>	
<b>0-1</b>	International Application No.	
<b>0-2</b>	Date stamp of the receiving Office	
<b>0-4</b>	<b>Form PCT/RO/101 (Annex)</b>	
<b>0-4-1</b>	<b>PCT Fee Calculation Sheet Prepared Using</b>	<b>PCT-SAFE [EASY mode] Version 3.50 (Build 0002.162)</b>
<b>0-9</b>	Applicant's or agent's file reference	<b>101211-1 WO</b>
<b>2</b>	Applicant	<b>ASTRAZENECA AB</b>
<b>12</b>	<b>Calculation of prescribed fees</b>	<b>fee amount/multiplier      Total amounts (GBP)</b>
<b>12-1</b>	Transmittal fee <b>T</b>	<b>⇒      55</b>
<b>12-2-1</b>	Search fee <b>S</b>	<b>⇒      1078</b>
<b>12-2-2</b>	International search to be carried out by	<b>EP</b>
<b>12-3</b>	International filing fee (first 30 sheets) <b>I1</b>	<b>628</b>
<b>12-4</b>	Remaining sheets	<b>124</b>
<b>12-5</b>	Additional amount <b>(X)</b>	<b>7</b>
<b>12-6</b>	Total additional amount <b>I2</b>	<b>868</b>
<b>12-7</b>	<b>I1 + I2 = I</b>	<b>1496</b>
<b>12-12</b>	EASY Filing reduction <b>R</b>	<b>-45</b>
<b>12-13</b>	Total International filing fee (I-R) <b>I</b>	<b>⇒      1451</b>
<b>12-14</b>	Fee for priority document	
	Number of priority documents requested	<b>0</b>
<b>12-15</b>	Fee per document <b>(X)</b>	<b>22</b>
<b>12-16</b>	Total priority document fee: <b>P</b>	<b>⇒</b>
<b>12-17</b>	<b>TOTAL FEES PAYABLE (T+S+I+P)</b>	<b>⇒      2584</b>
<b>12-19</b>	Mode of payment	<b>authorization to charge deposit account</b>
<b>12-20</b>	Deposit account instructions	
	The receiving Office	<b>United Kingdom Patent Office (RO/GB)</b>
<b>12-20-1</b>	Authorization to charge the total fees indicated above	<b>✓</b>
<b>12-20-2</b>	Authorization to charge any deficiency or credit any overpayment in the total fees indicated above	<b>✓</b>
<b>12-20-3</b>	Authorization to charge the fee for priority document	<b>✓</b>
<b>12-21</b>	Deposit account No.	<b>D02934</b>
<b>12-22</b>	Date	<b>10 September 2004 (10.09.2004)</b>
<b>12-23</b>	Name and signature	<b>Jennifer Bennett</b>

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13-2-3	Validation messages Names	Yellow! Agent 1 would not appear to be competent to act before the receiving Office
	Validation messages Names	Green? Applicant 1:City missing
13-2-7	Validation messages Contents	Green? The international application contains no drawings. Please verify.
13-2-8	Validation messages Fees	Green? Please confirm that fee schedule utilized is the latest available
13-2-9	Validation messages Payment	Green? Please ensure that you have a valid deposit account with the receiving Office selected.

## ABSTRACT

The invention concerns quinazoline derivatives of the Formula I:

(A chemical formula should be inserted here - please see paper copy enclosed herewith)

wherein each of R1, R2, W, X1, X2, Z, a and b are as defined in the description; processes for their preparation; pharmaceutical compositions containing them and their use in the manufacture of a medicament for providing an anti-proliferative effect. The quinazoline derivatives of Formula I are expected to be useful in the treatment of diseases such as certain cancers mediated by erbB receptor tyrosine kinases, particularly EGFR tyrosine kinase



# PATENT COOPERATION TREATY

## Appointment of Agent or Common Representative

The undersigned applicants HALSALL Christopher Thomas and HENNEQUIN Laurent Francois Andre hereby appoint

ÅS SIVBORG, Susanne; ANDERSSON, Kerstin; BENNETT, Jennifer; BERRY, Ian Gordon; BILL, Kevin; BOAR, Robin; BRYANT, Tracey; BURNS, Tracy; CELEBIOGLU, Sonya; COCHRAN, Karen Elizabeth; DENERLEY, Paul Millington; DIXON, Helen Jane; DOUGLAS, Shirley Andrea; FARQUHARSON, Andrew; FREDRIKSSON, Gunilla; FRENCH, Philip; GAINEY, Laurence David Scott; GILBERT, George Anthony; GILES, Allen Frank; GRIFFITHS-JOHNSON, Anna; HADLEY, John; HUDSON, Janette; HÄLLGREN, Christer; JANSSEN, Anne; JÖNSSON, Jenny; KONDRAD, Karen Haggerty; LARSSON, Birgitta; LINDEROTH, Margareta; MACK, John Richard; MASON, Katie Louise; MILLER, Thomas; MITCHELL, Kenneth Frank; NELSON, Michael; PADGET, Lucy; PHILLIPS, Neil Godfrey Alasdair; QUARTIN, Robin Sandra; REMMER, Jane; SAMUELSSON, Britta; SKEPPSTEDT, Anita; STANSFIELD, Kevin; STERNÅS, Ann-Sofie; SUMMERSELL, Richard; TAIT, Brian Steele; THOMAS, Mair; TIERNEY, Francis; TINSLEY, Rachel; WAHLSTRÖM, Christer; WALLIN IDSTAM, Åsa;

with address AstraZeneca AB, Global Intellectual Property, SE-151 85 Södertälje, Sweden

☒ as agent

☐ as common representative

to act on their behalf before the competent International Authorities in connection with the International application concerning

### QUINAZOLINE DERIVATIVES

Macclesfield, Cheshire, SK10 4TG  
OK. 13th August 2004  
Place and date

*Christopher Thomas Halsall*  
HALSALL Christopher Thomas

Reims, France  
21st August 2004  
Place and date

*Laurent Francois Andre Hennequin*  
HENNEQUIN Laurent Francois Andre

## **PCT**

### **General Power of Attorney**

*(for several international applications filed under the Patent Cooperation Treaty)*

We, AstraZeneca AB of 151 85 Sodertalje, Sweden, hereby authorise:

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**BILL, Kevin**

**JÖNSSON, Jenny**  
**KONDRAD, Karen Haggerty**  
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**FREDRIKSSON, Gunilla**

**PHILLIPS, Neil Godfrey Alasdair**  
**QUARTIN, Robin Sandra**  
**REMMER, Jane**  
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**TAIT, Brian Steele**

**HADLEY, John**  
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**JANSSON, Anne**

**THOMAS, Mair Denise**  
**TIERNEY, Francis John**  
**TINSLEY, Rachel Maria**  
**WAHLSTRÖM, Christer**  
**WALLIN INDSTAM, Åsa**

with address Global Intellectual Property, AstraZeneca AB, SE-151 85 Sodertalje, Sweden

to represent and duly sign for AstraZeneca AB in everything that concerns British and International patent applications, design applications and applications divided or separated therefrom as well as patents and designs based thereupon. This authorisation includes the authority to accept writs of indictment or summonses and other documents in proceedings and matters concerning the application, patent or design.

Sodertalje, Sweden – 26<sup>th</sup> August 2004

AstraZeneca AB

  
Kevin Bill, Authorised Officer

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## **PCT**

### **General Power of Attorney**

*(for several international applications filed under the Patent Cooperation Treaty)*

We, AstraZeneca UK Limited of 15 Stanhope Gate, London W1K 1LN, United Kingdom, hereby authorise:

**ÅS SIVBORG**, Susanne  
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**BENNETT**, Jennifer Charlene  
**BERRY**, Ian Gordon  
**BILL**, Kevin

**BOAR**, Robin  
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**BURNS**, Tracy Anne  
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**DENERLEY**, Paul Millington  
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**TINSLEY**, Rachel Maria  
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to represent and duly sign for AstraZeneca UK Limited in everything that concerns British and International patent applications, design applications and applications divided or separated therefrom as well as patents and designs based thereupon. This authorisation includes the authority to accept writs of indictment or summonses and other documents in proceedings and matters concerning the application, patent or design.

Sodertalje, Sweden – 26<sup>th</sup> August 2004

AstraZeneca UK Limited

  
Kevin Bill, Authorised Officer

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